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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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62/676,941 12/30/99 ROSENBAUS E KLAIP00101

MMC2/1012

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EXAMINER

ROSENBERGER, R

ART UNIT

PAPER NUMBER

2877

DATE MAILED:

10/12/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/474,941

Applicant(s)  
ROSENGAUS et al

Examiner  
Richard Rosenberger

Group Art Unit  
2877



☒ Responsive to communication(s) filed on Jul 31, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1, 3-6, and 8-22 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 3-6, 8-22 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6, and 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morioka et al (US 5,274,434) taken with Morioka et al (US 5,463,459) Yamamoto et al (US 5,623,340).

Morioka et al('434) shows, in figure 22, a manufacturing system with a plurality of "job stations" (1502), inspection stations (1503) and the like. There is also a handling tool for moving wafers amongst the various stations.

Morioka et al ('434) shows that it is known to use a plurality of modular inspection units across the width of a integrated circuit manufacturing tool. In figure 17, the reference shows such a system which can scan the entire wafer in one pass; note column 10, lines 64-68, where this embodiment is described by "the full surface inspection of the product wafer 111 can be made by one scanning 510 by disposing two or more lines of microlenses 1301 in a zigzag arrangement as shown in FIG. 17." Note also Morioka et al ('459), figures 8, 15 and 16, and Yamamoto et al, figures 2 and 4, which also show this.

Morioka et al(434) teaches that the system of that patent can provide "real time inspection in mass production lines (column 2, line 57) and can be placed "in a transfer system between processing apparatuses" (column 2, line 62). Thus Morioka et al teaches placing the system in line. Such a system can be placed anywhere in such a manufacturing system which is convenient or where inspection is desired.

As noted in the instant specification, page 18, lines 17-28, inspection systems for wafers using time delay integration are known in the art; using this known system for it known purpose would have been obvious.

When using multiple channels, as taught by Morioka et al, it would have been obvious to duplicate not only the optics, but the channel specific processing into a local processor associated with each channel, which using a master processor for control and processing which are not unique for each channel. This is taught by Yamamoto et al; note local processors 28A-28F and master processor 29.

Those of ordinary skill could make appropriate variants of the system of Morioka et al, choosing other known and appropriate detectors, other types of stations needed for the particular processing being used, etc.

3. In the statemnt of the rejection in the office action mailed 25 April 2000, there was a typographical error in the statement of which claims were rejected. Any confusion or inconvenience reuslting from that error is regretted.

4. The remarks filed 31 July 2000 have been considered, but have not been found persuasive. The references teach placing such an inspection system in line in a manufacturing process. Placing the system in line within a cluster tool is a straightforward and obvious application of the teachings of the reference.

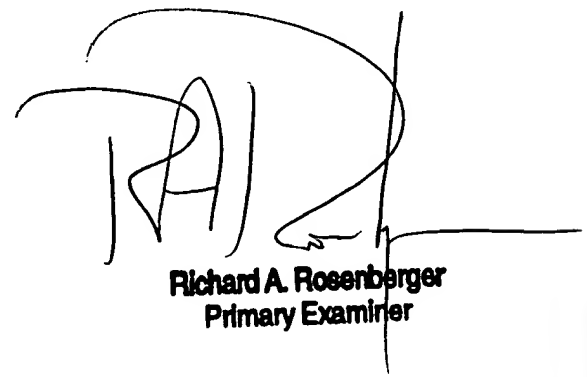
Placing the inspection apparatus at any location where inspection is desired, including proximate a cooling stage, would have been obvious; there is nothing in the art to suggest that somehow the inspection apparatus becomes inoperative if placed on the vicinity of a cooling stage.

5. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger  
6 October 2000



Richard A. Rosenberger  
Primary Examiner